

ATTORNEY DOCKET NO. 04150.0019U1
APPLICATION NO. 10/526,209

This listing of claims will replace all prior versions and listings of claims in the application:

PENDING CLAIMS

1. (Previously presented) A process for the preparation of an unsupported olefin polymerisation catalyst comprising:
 - a) reacting an aluminoxane and a Lewis base in an optionally halogenated hydrocarbon solvent to form a particulate suspension;
 - b) reacting said suspension with a metallocene complex in an optionally halogenated hydrocarbon solvent; and
 - c) isolating the unsupported olefin polymerisation catalyst;
wherein said Lewis base comprises an aliphatic or aromatic amine, an ether, phenol, benzyl alcohol, ethylene glycol, glycerol, bisphenol, triethanolamine, butanediol, 4,4'-isopropylidenediphenol, 3-hydroxypropylene oxide, or a mixture thereof.
2. (Previously presented) A process as claimed in claim 1, wherein said Lewis base comprises aniline, benzylamine, 1,4-butanediol diglycidyl ether, or a mixture thereof.
3. (Previously presented) A process as claimed in claim 1, wherein said aluminoxane is methylalumoxane.

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4. (Previously presented) A process as claimed in claim 1, wherein the optionally halogenated hydrocarbon solvent used during step a) comprises an optionally halogenated C₄₋₁₂ alkane or C₆₋₁₂ arylene.
5. (Previously presented) A process as claimed in claim 4, wherein said hydrocarbon solvent comprises toluene or xylene.
6. (Previously presented) A process as claimed in claim 1, wherein the solvent employed in step b) is the same as that employed in step a).
7. (Previously presented) A process as claimed in claim 1, wherein the ratio of aluminium in the aluminoxane to Lewis base is 5 to 40 mol/mol.
8. (Previously presented) A process as claimed in claim 1, wherein the metallocene complex is bis(n-Bu-cyclopentadienyl) zirconium dichloride.
9. (Previously presented) A process as claimed in claim 1, wherein the molar ratio between aluminium in the aluminoxane and the transition metal in metallocene is in the range 20:1 to 1000:1.
10. (Canceled)

11. (Canceled)

12. (Canceled)

13. (Currently amended) A process as claimed in claim 1, further for the preparation of polyolefins comprising d) polymerising at least one olefin in the presence of an the isolated unsupported olefin polymerisation catalyst as claimed in claim 10 of step c).

14. (Previously presented) A process as claimed in claim 13, wherein said polymerisation takes place in the slurry phase.

15. (Currently amended) A process for the preparation of a prepolymerised olefin polymerisation catalyst comprising:

- a) reacting an aluminoxane and a Lewis base in an optionally substituted hydrocarbon solvent to form a particulate suspension;
- b) reacting said suspension with a metallocene complex in an optionally substituted hydrocarbon solvent to form [[a]] an unsupported catalyst;
- c) prepolymerising said catalyst in the presence of an olefin; and
- d) isolating the prepolymerised catalyst;

wherein said Lewis base comprises an aliphatic or aromatic amine, an ether, phenol, benzyl alcohol, ethylene glycol, glycerol, bisphenol, triethanolamine, butanediol, 4,4'-isopropylidenediphenol, 3-hydroxypropylene oxide, or a mixture thereof.

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16. (Canceled)

17. (Canceled)

18. (Currently amended) A process for the preparation of polyolefins comprising polymerising at least one olefin in the presence of an ~~olefin polymerisation catalyst as claimed in claim 17~~ isolated suspension of unsupported catalyst particles made by the process as claimed in claim 1.

19. (Canceled)